

Dr. Alan Lloyd
Chair, Economic and Technology Advancement Advisory Committee
California Environmental Protection Agency
1001 I Street
Sacramento CA, 95814

Re: Supplemental SCE Comments on the Economic and Technology Advancement Advisory Committee Draft Report to the California Air Resources Board

Dear Dr. Lloyd,

Southern California Edison (SCE) appreciates the opportunity to submit supplemental comments regarding the Economic and Technology Advancement Advisory Committee's (ETAAC) draft report to the California Air Resources Board (CARB), "*Economic and Technology Advancements for California Climate Solutions*" (Draft Report). SCE's November 29th letter to the ETAAC addressed the Draft Report's comment on the California Market Advisory report "*Recommendations for Designing a Greenhouse Gas Cap-and-Trade System for California*" (CMAC Report), indicating SCE support for the First Seller approach endorsed in the CMAC Report. In addition, SCE supports real, verifiable offsets without geographic or sectoral restrictions. Finally, SCE advised that the ETAAC give careful consideration to the investment signal California may send by implementing policies which unnecessarily erode the value of current infrastructure investments. These supplemental comments build on SCE's initial letter to the ETAAC, addressing specific technology suggestions endorsed in the Draft Report.

Regulatory and Legislative Changes Can Provide Significant Stimulus for Existing Solutions

As stated in greater detail below, regulatory and legislative actions can have a significant impact on the availability of current technology as a tool for reducing greenhouse gas (GHG) emissions. Specific action can be taken in various areas. For example, current regulatory and legislative restrictions on the deliverability of renewable energy limit the ability of California's load serving entities (LSEs) to promote the development of no-carbon renewable energy. Action to reduce such restrictions could increase the State's inventory of such no-carbon energy. Additionally, action toward reconsidering the role of nuclear power in California could allow the State to reducing GHG emissions attributed to electricity generation. Finally, regulatory support for emission reduction regulation that provides incentives for regulated entities to actively support emission reductions without the undue risk of unfair burden shifting would further enhance parties' emissions reduction efforts.

Renewable Resources

SCE agrees with the Draft Report's statement that "The key to supplying more renewable energy to the grid is improved transmission access."¹ Achieving California's Renewable Portfolio Standard (RPS) by 2010 is proving to be a substantial challenge for all three investor-owned utilities (IOUs), with the greatest obstacle being access to transmission. Accordingly, SCE encourages the ETAAC to reiterate this challenge in its report to the California Air Resources Board (CARB).

Swift legislative and regulatory action can also facilitate additional renewable development and procurement by California LSEs. Currently the CPUC is considering the use of unbundled and tradable renewable energy credits (TRECs) for purpose of California RPS compliance. SCE supports the use of TRECs and has encouraged the CPUC to approve their use. However, under current law, there is a limited supply of TRECs available for California RPS compliance. California could substantially increase renewable energy development by easing the legislative restrictions on deliverability that are currently a component of the California RPS statute. SCE encourages the ETAAC to incorporate such a suggestion into its final report.

Smart Grid

Any plans for substantial increases in renewable energy generation must not only address transmission access, but also system integration and reliability. Significant hurdles exist in developing these resources, but integrating the intermittent, non-dispatchable resources presents additional challenges. One potential tool to apply to this integration challenge, as stated in the Draft Report, is Smart grid technology. SCE recently unveiled the Avanti Circuit of the Future. This Smart grid technology not only improves system reliability, but also provides a safer working environment for those working on the distribution system. In addition to these immediate benefits, Smart grid technology will eventually help make it possible for utilities to integrate larger amounts of intermittent renewable energy from sources such as wind and solar into our grids.

In addition to the resource integration benefits of the Smart grid, the increased adoption of smart Demand Response, i.e. targeted load reduction during peak demand periods, will reduce ozone and particulate matter production levels that are associated with higher electricity use. The capability of stabilizing power consumption periods using demand response will allow a clean power market to participate during opportune times.

Advanced smart metering, as SCE's SmartConnect[®], will enable SCE to promote "green" power programs to reach environmentally conscious consumers. Additionally, the cost of carbon produced could be shown on a customer's bill, for reference. A smart grid will also enable the

¹ Draft Report at 5-7.

use of intelligent appliances to contribute toward reduction of grid stress, and therefore, reduced air emissions.

The ability to control load intelligently will enable SCE to delay additional investments in substations and transmission lines to meet peak demand, and thereby reducing generation requirements.

The ETAAC Report Should Recognize the Substantial Benefits Provided By Nuclear Power

Given the urgency and reality of the global climate issue, SCE believes that nuclear power should be available to be part of the solution to this problem. As a complement to other innovative technology solutions suggested in the Draft Report, SCE recommends that ETAAC conclude that actions should be taken in the near term to ensure that nuclear power can be a timely option for needed additional electrical generation. Near term actions should include identifying viable sites and seeking a Nuclear Regulatory Commission (NRC) Early Site Permit (ESP) for one or more such sites. As an early step, an ESP would reduce uncertainties, provide some assurances of project feasibility, and meaningfully accelerate the availability of a new plant once it is decided one should be developed.

The current moratorium does not preclude obtaining an ESP as a means of being able to deploy new plants in a timely manner if determined to be appropriate. Nuclear generation of electricity provides substantial environmental, fuel diversity and reliability benefits. California needs to be prepared to expand the supply of nuclear power as a means of meeting GHG reduction goals in a proven and achievable manner.

In addition to obtaining an ESP to ensure that expansion of nuclear power can be a timely option, the benefits of nuclear power can be prolonged through license renewal for existing facilities. California's nuclear power plants have proven benefits; nuclear power is a safe, reliable source of energy. Additionally, because the NRC has already established the process and requirements for license renewal, existing regulatory structure is sufficient to process a license renewal.

Because nuclear power emits a negligible amount of GHG, nuclear power is a technology that will not only serve to achieve the 2020 emissions cap, but also the more aggressive 2050 emission reduction goals.

Benefits of Electrification

Another example of currently available technology that can serve to reduce GHG emissions is the electricity sector itself. The electricity sector can be a valuable tool in California's efforts to reduce GHG emissions. SCE welcomes the opportunity to contribute to emission reductions via electrification of processes traditionally powered by fossil fuel combustion engines. This

includes plug-in hybrid vehicles, as well as other diverse electrification projects. Because electricity generation has a lower emissions profile than many of these combustion engines, electrification can provide substantial net reductions in emissions. However, with such initiatives, demand for electricity will increase and as a result emissions directly attributed to the electricity sector could increase. As such projects become operational the CARB will need to recognize the impact on California electricity generation. SCE suggests that the ETAAC report recognize that ratepayers should be protected from paying for the emission reductions shifted from non-electric sectors.

Expanded Energy Storage Options Can Provide Substantial Reliability and Emission Reduction Opportunities

SCE supports the Draft Report's suggestion to further evaluate the role of energy storage options as a means to more easily integrate intermittent resources into the grid as well as to efficiently store lower emission energy. While hydroelectric pumped storage could make a substantial contribution in this arena, SCE reiterates its concern that the ETAAC not pick winners by directly proscribing specific technologies. Continued storage research is warranted.

Thank you again for the opportunity to submit these comments on the Draft Report. SCE looks forward to working with ETAAC, CARB and other stakeholders to help achieve the emission reduction goals of California.

Best Regards,

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